Remarks

The applicants request entry of the present amendments to the claims as placing the application in condition for allowance or reducing the issues for consideration on appeal. After the amendment herein, claims 1-44; 80; 81; 99-102 are canceled, claims 45-48; 51-53; 55; 57-58; 60; 62; 63; 65; 67; 68; 70; 72; 74; 82-94 and 96 have been amended. After the amendments herein, claims 45, 74, 82, 86, 87 and 97 are in independent form.

Support for the amendments herein can be found throughout the specification, for example, at paragraphs 42, 43, 44, 55 and 56 of the applicant's Published Patent Application No. 2003/0046335. No new matter is believed to have been added.

Claims 45-80, 82-99 and 102 stand rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 6,173,322 to Hu in view of U.S. Patent No. 6,173,322 to Blumenau.

35 U.S.C. §103

According to the M.P.E.P. §706.02(j), to establish a *prima facie* case of obviousness, the prior art reference must teach or suggest all the claim limitations. It is the applicants' position that a *prima facie* case of obviousness has not been established for the claims as amended herein.

With specific reference to claim 45 as amended herein, the applicants assert that a *prima facie* case of obviousness has not been established because the cited references, even when combined, fail to teach or suggest:

> receiving a request from a sender for an object stored on an intelligent storage system... evaluating the request for the object based upon at least one predetermined criterion ... if the at least one predetermined criterion is met, returning a redirect code from the web server to the sender, wherein the sender utilizes the redirect code to obtain the object in a manner that bypasses the web server for outbound traffic from the intelligent storage system to the client without transferring a corresponding session between the web server and the sender to a different web server...

Hu teaches in relevant part, a network request manager 102 that handles client requests directed to a web site. The network request manager comprises a plurality of "modules" including a *connection module* 208 that establishes a connection between a client computer and a content server 106 that is assigned by the network request manager 102 to service the client in either a *proxy mode* or a *redirect mode*. In proxy mode, the network request manager acts on behalf of the client by forwarding client requests to the selected content server for servicing and by returning the results from the selected content server to the client. In redirect mode, the network request manager returns to the client "*whatever*" information is required to enable the client to establish *a direct connection* with the content server[1].

The connection module operates in redirect mode if the network request manager 102 identifies that predetermined redirection criteria have been satisfied. Otherwise, the connection module operates in proxy mode. If redirection criteria have been satisfied, the network request manager selects an appropriate content server 106 and responds to the corresponding client request with information that will allow client to contact the selected content server directly, e.g., by returning a web site address of a selected content server 106. Using this information, the client 104 re-transmits the client request to the identified content server 106 and receives the results directly from that server[2].

Thus, in redirect mode, the network request manager performs two primary tasks. It selects a content server from a plurality of content servers associated with the network request manager 102 to service the client request (utilizing a *rules module* 204 and a *policy module* 206), then the network request manager 102 hands off the client to the selected content server.

Blumenau discloses a storage controller that includes a plurality of virtual ports, a cache memory and a plurality of storage devices. The cache stores portions of the memory contents stored by the storage devices to increase the response to requests for the stored content. Additionally, the

[1] See for example, Col. 3, lines 3-10; Col. 4, lines 4-14; Col. 5, lines 20-54.
[2] See for example, Col. 11, lines 17-27; Col. 12, lines 43-52.

virtual ports are configured in software and do not physically exist. Each virtual port enables access to only a select portion of the storage provided by the storage devices[3].

However, Hu, even when combined with Blumenau, fails to teach or suggest all of the claimed limitations of claim 45 as amended herein. For example, as recited in claim 45, a web server receives a request from a sender for an object stored on an intelligent storage system. If at least one predetermined criterion is met, the web server returns a redirect code to the sender (instead of the requested object), wherein the sender utilizes the redirect code to obtain the object. The redirect code allows the outbound traffic comprising the desired object to be communicated from the intelligent storage system to the client in a manner that bypasses the web server without transferring a corresponding session between the web server and the sender to a different web server.

Thus, as claimed, the web server does not select a content server from a plurality of content servers to service the request as taught in Hu. Rather, the web server knows before-hand, the particular location of the object – it is stored on the intelligent storage system. Moreover, the web server does not *hand off* the client to a selected content server (another web server) to service the client request. That is, there is no transfer of a corresponding session to another server. Rather, as claimed, the web server either supplies the object to the sender, or the web server provides the sender with a redirect code that allows the requested object to be communicated from the intelligent storage system, e.g., a network attached storage (NAS) system, to the client without passing through the web server.

> As Noted in the specification of the present invention:
>
> [0044] ... Note that Section 8.2.2.3, "Redirect", of the WSP Specification states that sending a redirect protocol data unit may be used as a "crude form of load balancing at session creation time". That is, a server might return a redirect code as a way of transferring traffic to a different server. Load balancing techniques of this type are known in the art, whereby *session handoff* may be performed at run-time. However, this is *distinct* from the approach of the present invention, which uses redirection to completely bypass the Web server for outbound traffic and not to transfer the session to a different Web server. ...(emphasis added)[4].

[3] See for example, Col. 2, line 42 through Col. 3, line 18.

The disclosure in Hu is the same as the load balancing scheme described in paragraph 44 of the applicants published patent application. In Hu the network request manager, when operating in redirect mode, simply hands off the client request to another content server for servicing the request. This can be seen based upon the above description of the redirect mode. The "hand off" in redirect mode is further derived in Hu, e.g., based upon the description of the "pinger module 218". In Hu, if operating in redirect mode, once a client request is handed off, the network request manager has no way of knowing that a request had been satisfied. Accordingly, the pinger module 218 periodically pings associated content servers to see if the server is on-line. If a particular server is down, that server is temporarily removed from the dynamic metric of the policy module[5].

In view of the amendments and arguments above, the applicants request that the Examiner withdraw the rejection of claim 45 and the claims that depend therefrom.

Claims 82 and 87 recite similar limitations and the arguments above are applied analogously. Accordingly, the applicants request that the examiner withdraw the rejection to claims 82, 87 and the claims that depend therefrom.

With specific reference to claim 74 as amended herein, the applicants assert that a *prima facie* case of obviousness has not been established because the cited references, even when combined, fail to teach or suggest:

> ...receiving a request for a particular object that is stored in an intelligent storage system... evaluating at least one characteristic of the particular object ... creating a redirect link on a web server receiving the request and deploying the redirect link on at least one other web server if the at least one evaluated characteristic of the particular object is satisfied, the redirect link being configured to redirect the request to the control unit of the intelligent storage system; and-creating an object serving link on the web server receiving the request and deploying the object serving link on at least one other web server if the evaluated characteristics of the particular object do not meet the criteria.

As noted in greater detail above, Hu teaches a network request manager 102 that handles client requests directed to a web site. The network request manager comprises a plurality of "modules".

---

[4] See the applicants' published patent application 2003/0046335, paragraph 44.

Disclosed modules include a server module 202 that receives client requests a rules module 204 and a policy module 206 that select a content server from a plurality of content servers associated with the network request manager 102 to service each client request. The connection module 208 causes a connection to be established with the particular content server 106 selected by rules module 204 and policy modules 206[6].

Regardless of whether the connection is via a proxy mode or redirect mode, there is no teaching or suggestion of deploying a redirect link on multiple web servers. Rather, in Hu, a single content server is selected to service the associated client request.

As noted in the present specification, deploying a redirect link on a plurality of severs enables, for example, any such server (such as any one of a plurality of servers in a server farm) that subsequently receives a request for the corresponding object that is stored by the intelligent storage system to automatically respond to the request with the redirect link[7]. At least this feature of claim 74 is further neither taught nor suggested by Blumenau.

In view of the amendments and arguments above, the applicants request that the Examiner withdraw the rejection of claim 74 and the claims that depend therefrom.

Claims 86 and 97 recite similar limitations and the arguments above are applied analogously. Accordingly, the applicants request that the examiner withdraw the rejection to claims 86, 97 and the claims that depend therefrom.

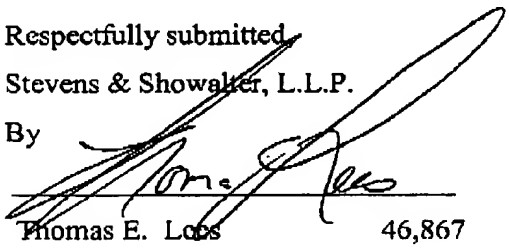
Conclusion

For all of the above reasons, the applicants respectfully submit that the above claims recite allowable subject matter. The Examiner is encouraged to contact the undersigned to resolve efficiently

[5] See for example, Hu, Col. 15, lines 10-60.
[6] See for example, Hu Col. 5. lines 20-40.
[7] See for example, the applicants published patent application 2003/0046335, paragraph 61.

any formal matters or to discuss any aspects of the application or of this response. Otherwise, early notification of allowable subject matter is respectfully solicited.

Respectfully submitted,
Stevens & Showalter, L.L.P.
By



Thomas E. Lobs 46,867

7019 Corporate Way
Dayton, Ohio 45459-4238
Phone 937-438-6848
Fax 937-438-2124